

CLEAN VERSION OF CLAIMS 1, 14, 16, 18, 35, 42, 45, 50, and 52

D1 1. A portable instrument for projecting a bit-mapped two-dimensional image in a display mode of operation, and for selectively electro-optically reading indicia in a reading mode of operation, comprising:

- a) a housing;
- b) an electro-optical assembly supported by the housing, for reading the indicia during the reading mode, and for projecting the bit-mapped two-dimensional image on a viewing surface during the display mode; and
- c) a mode selector for selecting one of the modes.

D2 14. A method of projecting a bit-mapped two-dimensional image in a display mode of operation, and of selectively electro-optically reading indicia in a reading mode of operation, comprising the steps of:

- a) manually selecting the reading mode on a portable instrument for reading the indicia; and
- b) manually selecting the display mode on the portable instrument for projecting the bit-mapped two-dimensional image on a viewing surface.

D3 16. An electro-optical assembly for projecting a bit-mapped two-dimensional image in a display mode of operation, comprising:

- a) an energizable light source for generating a light beam when energized;
- b) a scanner for sweeping the light beam in a raster pattern of scanning lines that cover an area of a viewing surface, and
- c) a controller for energizing and deenergizing the light source on and off while the light beam is swept over each of the scanning lines to create the image.

18. A portable, handheld device for displaying a bit-mapped two-dimensional image, comprising:

- a) a housing;
- b) a display surface on the housing; and
- c) a projector within the housing for projecting the image on the

display surface in a display mode of operation, the display surface being stationary on the housing during the display mode.

35. An arrangement for displaying a bit-mapped two-dimensional image for viewing by a human eye on a target, comprising:

a) an energizable laser for projecting a laser beam toward the target when energized;

b) a scanner for sweeping the laser beam along a plurality of light paths over the target; and

c) a controller operatively connected to, and operative for energizing and deenergizing, the laser while the laser beam is swept along the light paths, the controller being operative for energizing the laser at selected positions of the laser beam in at least one of the light paths to illuminate individual light pixels at the selected positions, and at a refresh rate at which the pixels persist to enable the eye to steadily view the bit-mapped two-dimensional image, the controller being operative for deenergizing the laser at other selected positions of the laser beam in at least one of the light paths to non-illuminate individual light pixels at the other selected positions, the image being comprised of a light pattern of the illuminated and non-illuminated pixels on the target.

42. The arrangement of claim 36, wherein the first scan mirror is moved at a first rate of speed through a first angular distance, and wherein the second scan mirror is moved

D6
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at a second rate of speed slower than said first speed, and wherein the second scan mirror is moved through a second angular distance greater than said first angular distance.

45. A method of displaying a bit-mapped two-dimensional image for viewing by a human eye on a target, comprising the steps of:

- D7
- a) providing an energizable laser to project a laser beam toward the target;
 - b) sweeping the laser beam along a plurality of light paths over the target;
 - c) energizing the laser at selected positions of the laser beam in at least one of the light paths to illuminate individual light pixels at the selected positions, and at a refresh rate at which the pixels persist to enable the eye to steadily view the image; and
 - d) deenergizing the laser at other selected positions of the laser beam in at least one of the light paths to non-illuminate individual light pixels at the other selected positions, the image being comprised of a light pattern of the illuminated and non-illuminated pixels on the target.
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50. A hand-held, electronic device for displaying a bit-mapped two-dimensional image, comprising:

- D8
- a) a housing having a display panel on the housing;
 - b) an energizable laser in the housing for projecting a laser beam toward the display panel when energized;
 - c) a scanner in the housing for sweeping the laser beam along a plurality of light paths over the display panel; and
 - d) a controller in the housing operatively connected to, and operative for energizing, the laser at selected positions of the laser beam in at least one of the light paths to generate individual light pixels at the selected positions on the display panel, and at a refresh rate at which the pixels persist to enable a human eye to steadily view the image comprised of a light

D8 cont'd
pattern of the pixels on the display panel, the display panel being stationary during display of the image.

52. A wearable, electronic device for displaying a bit-mapped two-dimensional image, comprising:

a) a wearable housing having a display surface positioned on the housing in front of a human eye;

b) an energizable laser in the housing for projecting a laser beam toward the display surface when energized;

c) a scanner in the housing for sweeping the laser beam along a plurality of light paths over the display surface; and

D9
d) a controller in the housing operatively connected to, and operative for energizing, the laser at selected positions of the laser beam in at least one of the light paths to generate individual light pixels at the selected positions on the display surface, and at a refresh rate at which the pixels persist to enable the eye to steadily view the image comprised of a light pattern of the pixels on the display surface, the display panel being stationary during display of the image.
